

Roundabouts: Lessons learned....so far

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Roundabout Design “Myths”

- They are complex
- Their features are new
- They require “experts”
- Their design is difficult
- Their design is unique and rigid



Roundabouts bring out the best of the profession.....

- **Designer-based — Principles and judgment**
- **Geometrics and Operations — Together again**
- **Iterative process — Creativity at last**
- **Evolving practice — Continual Improvement**
- **Context Sensitive Design — User Based**

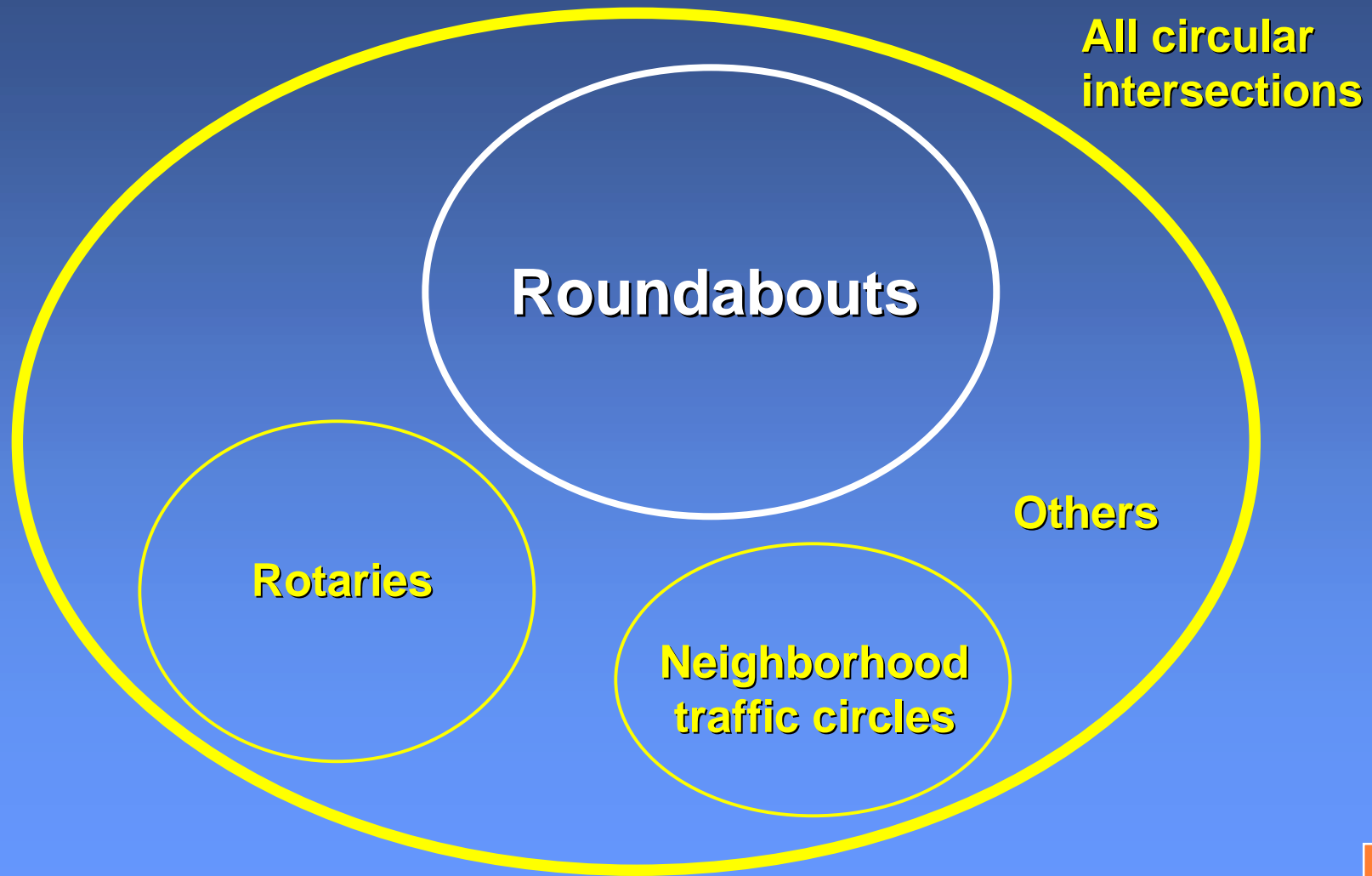


Agenda

- **Introduction**
- **Our experiences/roundabout types**
- **Hot Topics**
- **Conclusion / Discussion**



Roundabouts are a subset of circular intersections...



Roundabouts are smaller than Rotaries



Photo: Daily Freeman, Kingston, NY

Kingston, NY conversion

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Traffic Circles look good, but....



Photos: Lee Rodegerdts

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Why Consider a Roundabout?

- **Community Enhancement**
- **Traffic Calming**
- **Operational Improvements**
- **Safety Improvements**



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Some of our experiences...

- **Be sure you know the problem (operations and safety) before you create the solution.**
- **Roundabouts are based on sound design PRINCIPLES, not standards—one size does not fit all.**



Mini-Roundabout Examples

Germany

United Kingdom



Photos: Werner Brilon



Urban Compact Roundabout Examples



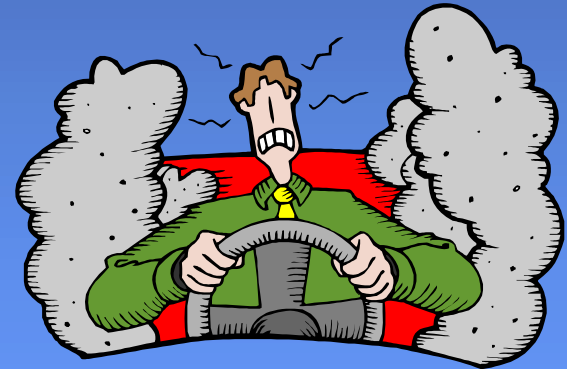
West Boca Raton, FL



Germany

Some of our experiences...

- **Intersections having issues that make it difficult for conventional form will be difficult with a roundabout.**
- **Designers are often reluctant to make significant changes. The initial plan keeps getting tweaked with the same end result.**



Urban Single-Lane Roundabout Examples



Santa Barbara, CA



Bend, OR

Some of our experiences...

- **Solutions can be preconceived. Perform "intersection design studies," versus "roundabout design studies."**
- **Teams take risks with roundabouts in locations where they would not take risks for conventional roadway solutions**



Rural Single-Lane Roundabout Examples



Leeds, MD

Lisbon, MD



Some of our experiences...

- **Teams drastically underestimate the time needed for public awareness.**
- **Multi-lane roundabouts are far more complex than single lane roundabouts**



Urban Double- and Multi-Lane Roundabout Examples



Towson, MD



Avon, CO

Rural Double-Lane Roundabout Examples



Australia

Taneytown, MD



The Netherlands

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 - **PUBLIC ISSUES**
 - **PATH OVERLAP**
- **Conclusion / Discussion**



Public Issues

- Program development
- Project development
- Vehicle code
- User education
- Information / resources available



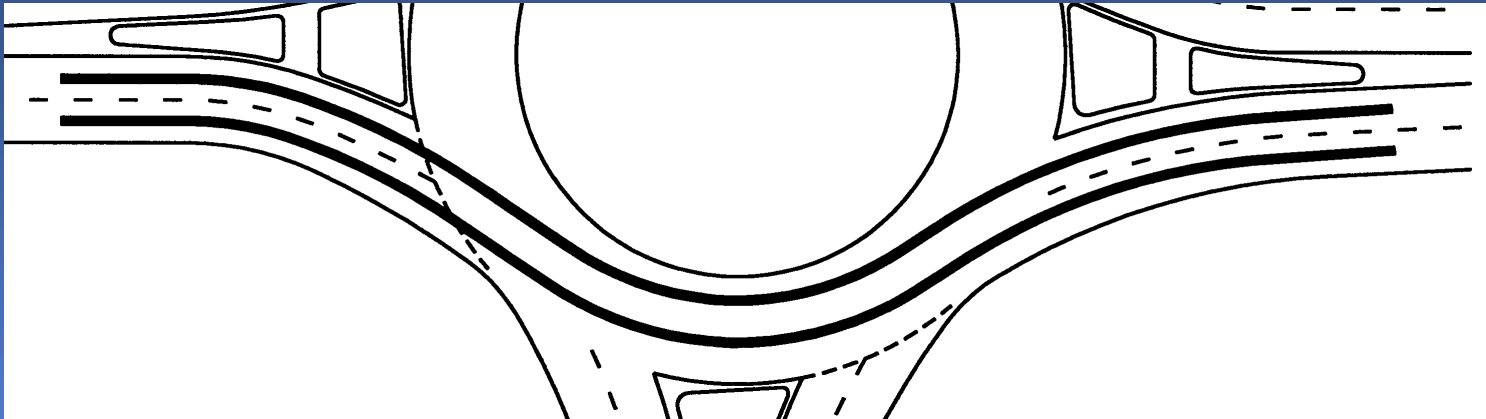
Program Development

- **Buy-in from top management**
- **Identify key staff person**
- **Identify implementation strategy**
- **Identify potential sites**
- **Plan, design and construct roundabouts**
- **Monitor and report results**



Multilane Roundabouts--Path overlap

Preferred



Undesirable



Path Overlap

Path Overlap Issues: Clearwater, FL



Photo: Bruce Robinson

Kittelson & Associates, Inc.



Path Overlap Fixes: Clearwater, FL



Photo: Lee Rodegerdts

Kittelson & Associates, Inc.



Conclusion/Discussion

- Roundabouts have many potential applications when considered thoughtfully
- Roundabouts integrate pedestrians and bikes as integral components
- There are a variety of types for a variety of locations
- Pending research will focus on US locations and experiences



The future of roundabouts in the U.S.?



Swindon, England

Swindon, England (with traffic)



Photo: Source unknown (web site)

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